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III. AMENDMENT TO THE CLAIMS

The listing of claims replaces all prior versions, and listings, of claims of the application.

- 1.-12. (Cancelled)
- 13. (Currently amended) A method of fabricating a capacitor, the method comprising the steps of:

conducting a rapid thermal nitridation in ammonia (NH₃) to generate generating a first layer of silicon nitride upon a silicon substrate;

depositing a layer including an aluminum oxide;

cleaning the layer including aluminum oxide in situ;

applying an ultra-high vacuum;

chemical vapor depositing (CVD) silicon nitride in the ultra-high vacuum to generate a second layer of silicon nitride; and

generating an electrode layer upon the second layer.

- 14. (Original) The method of claim 13, further comprising the step of cleaning the silicon substrate in hydrofluoric acid (HF) prior to generating the first layer.
- 15. (Cancelled)
- 16. (Currently Amended) The method of claim 15 13, wherein the layer including aluminum oxide has a surface temperature of no less than approximately 600°C and no greater than approximately 900°C during the step of generating the second layer.

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- 17. (Original) The method of claim 13, wherein the ultra-high vacuum is at no less than approximately 10⁻¹ Torr and no greater than approximately 10⁻⁸ Torr when idle and no less than approximately 10⁻⁷ Torr and no greater than approximately 10⁻⁷ Torr during silicon nitride deposition.
- 18. (Original) The method of claim 13, wherein the step of CVD uses silane (SiH₄) and ammonia (NH₃) as silicon (Si) and nitrogen (N) precursors.
- 19. (Original) The method of claim 13, further comprising the step of conducting a thermal anneal.
- 20. (Cancelled)
- 21. (New) The method of claim 13, wherein the first layer is no less than approximately 5Å and no greater than approximately 15Å.
- 22. (New) The method of claim 13, wherein the layer including aluminum oxide is no less than approximately 15Å thick and no greater than approximately 50Å thick.
- 23. (New) The method of claim 13, wherein the second layer is no less than approximately 3Å thick and no greater than approximately 8Å thick.

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24. (New) The method of claim 13, wherein the step of generating the first layer includes conducting a rapid thermal nitridation in ammonia (NH₃).

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